

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 February 2005 (24.02.2005)

PCT

(10) International Publication Number
WO 2005/017165 A1

(51) International Patent Classification⁷: C12N 15/63,
15/67, A61K 48/00

(74) Agents: LADWIG, Glenn, P. et al.; P.O. Box 142950,
Gainesville, FL 32614-2950 (US).

(21) International Application Number:
PCT/US2004/026196

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 11 August 2004 (11.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/494,184 11 August 2003 (11.08.2003) US
60/494,185 11 August 2003 (11.08.2003) US
60/513,067 21 October 2003 (21.10.2003) US
60/513,657 23 October 2003 (23.10.2003) US

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): UNIVER-
SITY OF SOUTH FLORIDA [US/US]; 4202 East Fowler
Avenue, FAO 126, Tampa, FL 33620-7900 (US).

Published:

— with international search report

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): PHILLIPS, Ian, M.
[US/US]; 5150 Royal Cypress Circle, Tampa, FL 33647
(US). TANG, Yao, Liang [CN/US]; 4892 Beach Dr. SE,
Apt.C, St. Petersburg, FL 33705 (US).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: STEM CELL BEACON

(57) Abstract: A stem cell-attracting chemokine is expressed in damaged tissue using a stimulus-responsive vector system. The stimulus can be a physiological stimulus associated with cell injury, such as hypoxia or elevated glucose levels, for example. Expression of the chemokine increases the trafficking of stem cells to the damaged tissue.

WO 2005/017165 A1